

REMARKS

Claims 1-20 were originally filed in the present application.

Claims 1, 3-8 and 10-20 are pending in the present application.

Claims 1, 3-8 and 10-20 were rejected in the December 12, 2006 Office Action.

No claims have been allowed.

Claims 1, 3-8 and 10-20 remain in the present application.

Reconsideration of the claims is respectfully requested.

In Sections 4 and 5 of the December 12, 2006 Office Action, the Examiner rejected Claims 1, 3-8, and 10-20 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,564,267 to *Lindsay et al.* (the “Lindsay reference”) in view of “Adaptive Frame Length Control for Improving Wireless Link Throughput, Range, and Energy Efficiency to *Lettieri et al.* (the “Lettieri reference”). Applicants respectfully disagree.

Applicants note that independent Claim 1 currently requires:

For use in communications system coupled to a *packet network lacking packet aggregation and fragmentation at intermediate nodes therein*, a packet relay for improving bandwidth utilization comprising:

- a connection to a wireless link;
- a connection to the packet network; and
- a packet relay controller intercepting traffic between the wireless link and the packet network and re-formatting the intercepted traffic to employ *a first maximum transmission unit size for intercepted traffic forwarded to the packet network and a second maximum transmission unit size for intercepted traffic forwarded to the wireless link,*
wherein the first maximum transmission unit size is larger than the second maximum transmission unit size. (emphasis added).

Notably, Claim 1 requires a packet relay controller that intercepts traffic between the wireless link and the packet network and re-formats the intercepted traffic to employ a first maximum transmission unit size for intercepted traffic forwarded to the packet network and a second maximum transmission unit size for intercepted traffic forwarded to the wireless link. In addition, Claim 1 requires that the first maximum transmission unit size is greater than the second maximum transmission size.

The Lindsay reference fails to disclose transmitting *any* traffic to a wireless link. Contrary to the Examiner's suggestion on page 3 of the December 12, 2006 Office Action, the Lindsay reference does not teach that the external network 38 can be a wireless link in column 4, lines 55-65. In fact, column 4, lines 55-65 of the Lindsay reference states:

Various peripherals can be connected to computer system 50 through PCI local bus 60. For instance, SCSI interface 63 can be used to connect disk drives to the system, and video card 64 provides an interface to a video monitor. Network interface card 36 also connects to PCI local bus 60, and includes an external network connection 38 such as an electrical or optical gigabit Ethernet link. Those skilled in the art will recognize that a wide variety of similar configurations are roughly equivalent to that shown for system 50, and that various well-known details, not pertinent to the invention, have been omitted. (emphasis added).

Accordingly, there is no suggestion, teaching or disclosure within this section of the Lindsay reference (or any other section of the Lindsay reference) of any wireless link.

Moreover, the Lettieri reference discloses the impact of media access control (MAC) layer frame lengths (which may correspond to the maximum transmission unit (MTU)) transmitted through a wireless link. The Lettieri reference, p. 564, second column. The Lettieri reference specifically teaches that the correct MTU choice is specific to every wireless hop. *Id.* at p. 565, first column, first full paragraph. The Lettieri reference goes on to specifically state that such systems

would require constant user intervention and thus proposes to instead make changes to the data link layer. *Id.* at third and fourth full paragraphs. The Lettieri reference accordingly proposes inserting below the IP layer a fragmentation and reassembly entity that fragments IP packets at the transmitter according to the current channel conditions and reassembles them at the receiver. *Id.* at fourth full paragraph.

Thus, the Lettieri reference fails to teach a packet relay controller that re-formats the intercepted traffic between a wireless link and a packet network to employ *a first maximum transmission unit size for intercepted traffic forwarded to the packet network and a second maximum transmission unit size for intercepted traffic forwarded to the wireless link*, as required by Claim 1.

Applicants also note that even if the Lettieri reference taught discovery of a proper MTU value at each intermediate node, Claim 1 of the present application specifically states “[f]or use in a communication system coupled to a packet network lacking packet aggregation and fragmentation at intermediate nodes therein[.]”

Thus, the Lindsay reference, either alone or in combination with the Lettieri reference, fails to teach or disclose all of the elements concurrently required by Claim 1. For example, there is no teaching or disclosure within the Lindsay reference or the Lettieri reference of a *packet relay controller* that intercepts traffic *between the wireless link and the packet network* and re-formats the intercepted traffic to employ *a first maximum transmission unit size for intercepted traffic forwarded to the packet network and a second maximum transmission unit size for intercepted traffic forwarded to the wireless link*, concurrently as required by Claim 1 (and its dependents).

Moreover, there is no suggestion or motivation within the Lindsay reference or the Lettieri reference to prompt one of ordinary skill to selectively combine discrete elements from these references and then *seek out* still others as concurrently required by Claim 1 (and its dependents).

Similar arguments exist for independent Claims 8 and 15 (and their respective dependents). Accordingly, Applicants respectfully request favorable reconsideration and the withdrawal of the §103 rejection.

SUMMARY

For the reasons given above, the Applicants respectfully request reconsideration and allowance of the pending claims and that this application be passed to issue. If any outstanding issues remain, or if the Examiner has any further suggestions for expediting allowance of this application, the Applicants respectfully invite the Examiner to contact the undersigned at the telephone number indicated below or at *jmockler@munckbutrus.com*.

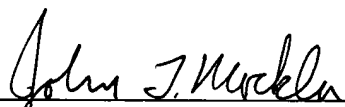
The Commissioner is hereby authorized to charge any additional fees connected with this communication or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

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Date: 27 Feb. 2007

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